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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/963,577	09/27/2001	Ryoichiro Uehara	05711.0122	9686

7590 07/29/2003

Finnegan, Henderson, Farabow,  
Garrett & Dunner, L.L.P.  
1300 I Street, N.W.  
Washington, DC 20005-3315

EXAMINER
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BRITTAINE, JAMES R

ART UNIT	PAPER NUMBER
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3677

DATE MAILED: 07/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/963,577	UEHARA ET AL.
	Examiner	Art Unit
	James R. Brittain	3677

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 5/1/03 & 5/21/03.
- 2a) This action is FINAL.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1,3,4,7,8 and 10-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1,3,4,7,8 and 12 is/are rejected.
- 7) Claim(s) 10 and 11 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a)  The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

#### Attachment(s)

- 1)  Notice of References Cited (PTO-892)
- 2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3)  Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4)  Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5)  Notice of Informal Patent Application (PTO-152)
- 6)  Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 1, 2003 has been entered.

### ***Response to Amendment***

Upon further review of the subject matter of claim 9, which is comparable to current claim 12, the indication of allowable subject matter is withdrawn upon further review of Krock (US 3600917). The inconvenience to applicant is regretted.

### ***Claim Objections***

Claim 12 is objected to because the term "the peripheral corners of straight portions on both sides" (lines 1-2) lacks antecedent basis for "the peripheral corners" and "on both sides". Correction is required.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. §103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3, 4, 7, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krock (US 3600917) in view of Krauss (US 5590444).

Krock (figures 1-6) teaches buckle structure acting as a key holder including a female body 10 with a flat housing and a concave portion 42 with flanking straight portions that act as butting portions. These butting portions mate with the complementary convex portion 19 with flanking straight portions on the male body 11 that has flexible legs 16 for insertion and engagement with the female body 10. These convex and concave surfaces are formed on the front faces of the male and female bodies at their center and sandwiched between the butting straight portions. The purpose of the cooperating engagement of the convex and concave surfaces is stated as to provide an interlock against relative lateral movement as found in col. 2, lines 22-28:

**25 The female member may be provided with a mouth notch 42 located between the body edge walls 34 and extending from one face of the body 32 to the other. The boss 19 is seated in this mouth notch 42 as the male member 11 reaches full insertion, thus interlocking the trailing end of the male member 11 and the mouth or open end 36 of the female member against relative lateral movement.**

The difference is that the central concave and convex butting portions aren't trapezoidal as claimed, but curved. However, Krauss (figures 5-9) teaches a buckle similar to Krock and further suggests the use of a trapezoidal butting guide 132, 134, 108 positioned on opposite side faces of the male body fitting into a cooperating

recesses 142, 144, 146 on side faces of the opening of the female body so as to provide a geometry well known in buckles to provide stable interengagement between the male and female bodies. The creation of interlocking structure with straight sides provides advantages in the buckle art described by Krauss (col. 4, line 66 through col. 5, line 14):

65 removed from channel 66.

Importantly, when buckle 50 is in a locked state, the interlocking keys of male member 54 and the interlocking

key receptacles of female member 52 together form a system that applies or distributes the torsional loads across top and bottom walls 70, 72 of female member 52. That is, the interlocking key system has thus transferred the torsional loads from resilient arms 104, 106 to the top and bottom walls of female member 52. In addition, the interlocking system helps guide arm 110 and resilient arms 104, 106 of male member 54 to guide squarely in line with the load. Also, if the webbing should become kinked to one side under load, the interlocking key system prevents the male or female member 54, 52 from being pulled side to side. That is, the interlocking system helps maintain a straight line pull on buckle 50. This enables resilient arms 104, 106 to perform their locking function. Male member 54 will therefore remain completely engaged.

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As the Krock buckle is designed to have butting convex and concave surfaces on the male and female bodies, respectively, so as to interlock the male and female bodies together at the mouth of the female body against relative lateral movement and it would be advantageous to have the lateral torsional loads well distributed across the front faces of the male and female bodies to the side faces while maintaining square

alignment during insertion and preventing lateral movement, it would have been obvious to modify the buckle of Krock so that the butting portions are trapezoidal in view of Krauss (figures 5-9) teaching the use of a trapezoidal butting guide 132, 134, 108 on the male body fitting into a cooperating recess 142, 144, 146 on a minor face of the opening of the female body so as to provide a geometry well known in buckles to provide stable interengagement between the male and female bodies so that torsional forces can be well distributed while providing sure guidance and preventing side to side movement.

As to claim 3, Krock shows in figures 3 and 4 the concave and convex butting surfaces formed on both front and rear surfaces of the male and female bodies.

In regard to claim 4, Krock shows in figures 3 and 4 the concave and convex butting surfaces sandwiched between straight butting portions formed on both front and rear surfaces of the male and female bodies. Claim 4 requires butting straight or linear-form butting portions on two opposite sides and the convex and concave portions on one side. Krock shows this. Claim 4 is silent on prohibiting other butting configurations such as convex and concave on the opposite surface. There are no limitations in claim 4 to prohibit convex and concave portions on both sides.

As to claim 7, Krock shows the concave portion of the female body and the convex portion on the male body in figure 1.

As to claim 12, the side view shown in figure 3 shows the convex portion and straight portions being notched to a one level lower stepped portion which fits into the female body so as to be overlapped thereby.

Claim 8 is rejected under 35 U.S.C. §103(a) as being unpatentable over Krock (US 3600917) in view of Krauss (US 5590444) as applied to claim 1 above, and further in view of Isenmann (US 3979934).

Krock places the concave butting portion on the female body and the convex butting portion on the male body. Krock fails to reverse the locations so that the so that the concave section is upon the male body and the convex section is upon the female body. However, Isenmann (figures 1-7) teaching similar buckle structure acting as a key holder and further suggests including a female body 10 with a flat housing and a convex portion with flanking straight portions that act as butting portions. These butting portions mate with the complementary concave portion with flanking straight portions on the male body 12 that has flexible legs 36 for insertion and engagement with the female body 10. Applicant is reminded that “[I]n considering the disclosure of a reference, it is proper to take into account not only specific teachings of the reference but also the inferences which one skilled in the art would reasonably be expected to draw therefrom.” In re Preda, 401 F.2d 825, 826, 159 USPQ 342, 344 (CCPA 1968). The Isenmann reference suggests to one of ordinary skill in the art that to provide an interlocking connection at the mouth of the female body with the convex butting portion on the female body and the concave butting portion on the male body provides a reversal of the concave and convex butting portions shown by Krock. Applicant is reminded that the reversal of parts has been held to be an obvious expedient. In re Gazda, 219 F.2d 449, 104 USPQ 400 (CCPA 1955). This teaching of Isenmann shows

that it would have been obvious to reverse the keyed portions between the male and female parts of the buckle of Krock.

#### ***Allowable Subject Matter***

Claims 10 and 11 are objected to as depending from a rejected base claim but would be allowable if rewritten in independent form to include all of the limitations of the base claim and any intervening claims.

#### ***Response to Arguments***

Applicant's arguments filed May 1, 2003 have been fully considered but they are not persuasive. Applicant argues that in Krauss, the butting portions are in the side faces rather than the front surface. Obviously, this is the case as indicated in the rejection. However, Krock is the primary reference and shows the curved butting surfaces on the front and back surfaces. Applicant's statement that Krock fails to cure the deficiency of Krauss is a misstatement of the application of the art, since Krock is the primary reference. As indicated above the combined teachings of Krock in view of Krauss render obvious the subject matter of applicant's claims.

#### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James R. Brittain whose telephone number is 703-308-2222. The examiner can normally be reached on Monday - Friday from 5:30 to 2:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J. J. Swann can be reached on 703-306-4115. The fax phone numbers for

the organization where this application or proceeding is assigned are 703-305-7687 for regular communications and 703-305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.



James R. Brittain  
Primary Examiner  
Art Unit 3677

JRB  
July 24, 2003